

REMARKS

Reconsideration of the application is respectfully requested in view of the proposed amendments, the discussion presented below, and the accompanying supplemental declaration of the inventor, Peter D. Brewer. The proposed amendments are supported by the application as filed and no new matter has been added by the amendment.

Claims 1-3 and 19 are amended, by deleting "planar" in the term "planar protective layer," and adding "wherein the protective layer has a planar top surface" to claim 1, and adding "top" before "portions of the defects" in claim 1. Claims 6-8, 13-17, and 24-32 were cancelled previously. Claims 1-5, 9-12, and 18-23 are present in this application.

Discussion

1. Rejection of claims 1-3 and 18-20 under 35 U.S.C. § 102(e) as being anticipated by Fujisada

The Examiner rejected claims 1-3 and 18-20 under 35 U.S.C. § 102(e) as being anticipated by Japanese patent document JP 58-18928 to Fujisada, et al. ("Fujisada"). This rejection should be withdrawn.

First of all, Fujisada is a foreign patent document apparently published in 1983. The Examiner is believed to have intended to cite 35 U.S.C. § 102(b) as the authority for this rejection. The Examiner is respectfully asked to confirm this assumption in the next office action.

Claim 1, as amended, recites:

A method for removing defects from a semiconductor surface,

comprising:

coating the semiconductor surface and the defects with a protective layer, wherein the protective layer has a planar top surface;

thinning the protective layer to selectively reveal top portions of the defects;

removing the defects; and

removing the protective layer.

It will be noted that claim 1 requires that "the protective layer has a planar top surface." This limitation is not taught or suggested by Fujisada, in which the defects or protrusions 2 are thinly coated and rise above the general surface of the resist 3. The rejection of claim 1 should be withdrawn for at least this reason, because a rejection for anticipation requires that the reference teaches every element of the claim. M.P.E.P. § 2131.

Claims 2, 3, and 18-20 depend from claim 1 and are allowable for at least that reason.

2. Rejection of claims 1-3, 18, 19, and 21 under 35 U.S.C. § 102(e) as being anticipated by Hak

Claims 1-3, 18, 19, and 21 are rejected under 35 U.S.C. § 102(e) as being anticipated by US patent application publication 2004/0018733 to Hak ("Hak"). This rejection should be withdrawn.

35 U.S.C. § 102(e) states, in pertinent part:

A person shall be entitled to a patent unless –

(e) the invention was described in - (1) an application for patent, published under section 122(b) by another filed in the United States before the invention by the applicant for patent . . . ;

The Section 102(e) rejection of the pending claims over Hak should be withdrawn at least because the Applicant made the claimed invention in the United States of America before the effective filing date of Hak. A declaration of the Applicant pursuant to 37 C.F.R. § 1.131(a) accompanied the previous paper and explained that the Applicant established actual reduction to practice of the subject matter of the claimed invention by at least November 8, 2001, and before Hak's effective date.

The Examiner, on page 9 of the office action mailed on January 10, 2007, stated that the Exhibit A referred to in the Applicant's declaration "fails to support the planar protective layer," because it is "not evident" that the thick photoresist layer is planar.

Accordingly, the supplemental declaration of the Applicant is provided to explain that the thick photoresist layer discussed in Exhibit A to the first declaration of the Applicant pursuant to 37 C.F.R. § 1.131(a) inherently had a planar top surface as now claimed in claim 1. The Applicant, therefore, had conceived and reduced to practice the invention of claim 1 and the other rejected claims before the effective date of Hak.

The rejections of claims 1-3, 18, 19, and 21 over the Hak reference therefore should be withdrawn because the Hak reference may not be used as a reference under 35 U.S.C. § 102(e). *See* MPEP § 715.

3. Rejection of claims 4, 5, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Hak

The Examiner rejected claims 4, 5, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Hak. This rejection should be withdrawn.

Claims 4, 5, and 20 depend from claim 1 directly or indirectly. As noted above, Hak is removed as a reference against claim 1 due to prior invention by the Applicant. The limitations added by claims 4 (thickness range of photoresist layer), 5 (thickness of photoresist layer), and 20 (semiconductor selected from a group consisting of GaSb, InAs, Si, InP, GaAs, InAs, and AlSb) are also disclosed in Applicant's evidence of prior invention.

Hak is not available as a reference against claims 4, 5, and 20 under 35 U.S.C. § 102(e) and the Section 103(a) rejection of these claims over Hak should be withdrawn for at least that reason.

4. Rejection of claims 4, 5, and 9-12 under 35 U.S.C. § 103(a) as being unpatentable over Fujisada as applied to claim 3 and in further view of Kudo or Nakayama

The Examiner rejected claims 4, 5, and 9-12 under 35 U.S.C. § 103(a) as being unpatentable over Fujisada as applied to claim 3 and in further view of Japanese patent documents JP 63-216346 to Kudo, et al. ("Kudo") or JP 4070704147 to Nagayama, et al. ("Nagayama"). This rejection should be withdrawn.

The rejection of claims 4, 5, and 10 are over Fujisada and an argument based on some case law that the ranges and rates added to claim 1 by these claims involve "routine optimization" that "has been held to be within the level of ordinary skill in the art." The Examiner admits that Fujisada does not teach the claimed steps.

The rejection of claims 9, 11, and 12 are over Fujisada as the primary reference and rely on Kudo and Nagayama for teaching the steps of thinning the protective layer recited in those claims. The Examiner admits that Fujisada does not teach the claimed steps.

However claims 4, 5, and 9-12 depend from claim 1 and incorporate that claim's limitations. As noted above, Fujisada does not anticipate claim 1. Therefore, the *prima facie* case of obviousness of claims 4, 5, and 9-12 fails and must be withdrawn because "[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." M.P.E.P. § 2143.03.

5. Rejection of claims 21-23 under 35 U.S.C. § 103(a) as being unpatentable over Fujisada as applied to claim 1 and in further view of Takehiko or Skee

The Examiner rejected claims 21-23 under 35 U.S.C. § 103(a) as being unpatentable over Fujisada as applied to claim 1 and in further view of Japanese patent document JP 06041770 to Takehiko, et al. ("Takehiko") or U.S. patent 5,989,353 to Skee, et al. ("Skee"). This rejection should be withdrawn.

The rejection of claims 21-23 are over Fujisada as the primary reference and rely on Takehiko and Skee for teaching the steps of removing the defects using a chemical etchant recited in those claims. The Examiner admits that Fujisada does not teach the claimed steps.

However claims 21-23 depend from claim 1 and incorporate that claim's limitations. As noted above, Fujisada does not anticipate claim 1. Therefore, the *prima facie* case of obviousness of claims 21-23 fails and must be withdrawn because "[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." M.P.E.P. § 2143.03.

Conclusion

In view of the above, the Applicant submits that the application is now in condition for allowance and respectfully urges the Examiner to pass this case to issue. The Examiner is respectfully invited to telephone the undersigned attorney as needed in order to advance the examination of this application.

* * *

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

I hereby certify that this correspondence is being deposited with the United States Post Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 4, 2007.



Lucy C. Derby
(name of person signing)

May 4, 2007
(Date)

Respectfully submitted,



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cc: Supplemental Declaration of Peter D. Brewer Pursuant to 37 C.F.R. § 1.131, or, in
the alternative, 37 C.F.R. § 1.132

Petition for an extension of time of one month and the fee for a one-month
extension (large entity)

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